What is claimed is:

1. A method for verifying the purported identity of a target individual utilizing a number of authorization tissue spectral data from verified individuals having known identities, said spectral data having a plurality of measurement wavelengths, comprising the steps of:

obtaining target tissue spectral data from said target individual, said target tissue spectral data having a number of measurement wavelengths; and

positively verifying said target individual purported identity by comparison of authorization tissue spectral data and target tissue spectral data relative to a preselected threshold.

2. The method for verifying the purported identify of a target individual as recited in claim 1, wherein the method further includes calculating a difference between said target tissue spectral data and said authorization tissue spectral data.

3. The method for verifying the purported identify of a target individual as recited in claim 2, further evaluating the difference calculated wherein said evaluation is done by a model that identifies between patients' differences.

4. The method for verifying the purported identify of a target individual as recited in claim 2, wherein said differences are processed through a model to determine the significance of identified differences.

5.   The method for verifying the purported identity of a target individual as recited in claim 1, wherein said number of authorization tissue spectral data is greater than one.

6.   The method for verifying the purported identity of a target individual as recited in claim 1, wherein said number of verified individuals is equal to one.

7.   The method for verifying the purported identity of a target individual as recited in claim 1, wherein said number of verified individuals is greater than one.

8.   The method for verifying the purported identity of a target individual as recited in claim 1, further comprising obtaining a number of authorization tissue spectra from an individual, said number of authorization tissue spectra being greater than two.

9.   The method for verifying the purported identity of a target individual as recited in claim 1, wherein said target spectrum is added to said authorization spectra after said verification.

10.   The method as recited in claim 1, wherein said number of measurement wavelengths is greater than four, further comprising calculating an inter-person spectral distance between said authorized spectra of said verified individuals at said wavelengths, wherein said wavelengths are selected at least in part to maximize said inter-person spectral differences.

11. The method as recited in claim 10, wherein said number of authorization tissue spectra is greater than four, further comprising calculating an intra-person spectral distance between said authorization spectra for an individual at said wavelengths, wherein said wavelengths are selected at least in part to minimize said intra-person spectral differences.

12. The method as recited in claim 1, wherein said tissue spectra include near-infrared wavelengths.

13. The method as recited in claim 12, wherein said tissue spectra includes a substantial spectral contribution from subcutaneous blood.

14. A method for verifying the purported identity of a target individual comprising the steps of:

obtaining a number of authorization tissue spectra from a number of verified individuals, said authorization tissue spectra having a plurality of measurement wavelengths, said verified individuals having identities;

obtaining a target tissue spectrum from said target individual, said target tissue spectrum having a number of measurement wavelengths;

performing discriminant analysis on said target tissue spectrum and said authorization tissue spectra for said purported identity; and

positively verifying said target purported identity if, and only if, said discriminant analysis is satisfied.

15.   A system for verifying the purported identity of a target individual comprising:

an authorized database including near-infrared tissue spectra for a plurality of authorized persons;

5   means for obtaining a near-infrared tissue spectrum and purported identity from said target individual;

means for discriminating between said target individual near-infrared spectrum and said authorized persons near-infrared spectra, utilizing said authorized person database and said target spectrum; and

10   means for indicating if said target individual purported identity is correct.

16.   The system as recited in claim 15, wherein said discriminating means utilizes said target purported identity.

15   17.   The system as recited in claim 16, wherein said means for obtaining said target individual spectrum includes means for measuring near-infrared radiation reflected from subcutaneous tissue of said authorized individual.

18.   The system as recited in claim 17, wherein said near-infrared spectra
20   includes a plurality of measurement values, each associated with a wavelength, wherein said means for discrimination includes means for calculating a spectral difference between any of said spectra, and said means for discrimination includes means for selecting a plurality of said wavelengths, such that spectral differences between said

spectra of said authorized persons is maximized.

19.   A system for verifying the purported identity of a target individual comprising:

5   a computer including an input device and an output device;

a database including near-infrared tissue spectra for a plurality of authorized persons;

means for obtaining a near-infrared tissue spectra from said target individual, including a near-infrared radiation source for projecting near-infrared radiation

10   subcutaneously and a near-infrared spectrometer for measuring subcutaneous near-infrared intensity over a plurality of wavelengths; and

a program running in said computer for discriminating between said target individual near-infrared spectrum and said authorized persons near-infrared spectra utilizing said authorized person database and said target spectrum.

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20.   The system of claim 19, wherein said means for obtaining a near-infrared tissue spectra includes an input element and an output element coupled to said tissue via an index-matching medium.

20   21.   The system of claim 20, wherein said index-matching medium comprises a chlorofluorocarbon polymer.

22.   The   system   of   claim   21,   wherein   said   polymer   includes

chlorotrifluoroethylene.

23.   The system of claim 20, wherein said index-matching medium has a

refractive index between about 1.30 and about 1.45.

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